

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) In a computer system that is network connectable along with one or more other computer systems to a network, the computer system including a processor and system memory, a method for creating an electronic message that can be stored and accessed with increased efficiency, the method comprising:

an act of the processor creating a message item representing the electronic message in accordance with a message schema, the message item having one or more general properties ~~that may be~~ common to a plurality of different ~~types of~~ message protocols and common to a plurality of different message applications;

an act of the processor assigning a primary type to the ~~created~~ message item, the primary type indicating a primary behavior of one or more content portions linked to the ~~created~~ message item;

an act of making the message item simultaneously compatible with the plurality of different message protocols by assigning one or more at least one protocol extension[[s]] to the ~~created~~ message item for each of the plurality of different message protocols to account for other properties that are not common between the plurality of different message protocols, each assigned at least one protocol extension adding one or more protocol specific properties from a protocol extension schema corresponding to a specified message protocol, selected from among the plurality of different message protocols, to the created message item ~~so as to~~ such that the one or more linked content portions of the message item are compatible ~~promote compatibility between the one or more linked content portions and with~~ [[a]] the specified message protocol; and

an act of making the message item simultaneously compatible with the plurality of different message applications by assigning one or more at least one application extension[[s]] to the ~~created~~ message item for each of the plurality of different message applications to account for properties that are not common between the plurality of different message applications, each assigned at least one application extension adding

one or more application specific properties from an application extension schema corresponding to a specified message application, selected from among the plurality of different message application, to the created-message item so as to such that the one or more linked content portions of the message item are compatible ~~promote compatibility between the one or more linked content portions and with [[a]] the specified message application.~~

2. (Original) The method as recited in claim 1, wherein the act of creating a message item representing the electronic message comprises an act of creating a message item representing the electronic message in accordance with a message schema, the message item having one or more general properties that are common to a plurality of different types of message protocols and message applications.

3. (Original) The method as recited in claim 1, wherein the an act of assigning a primary type to the created message item comprises an act of assigning a primary type to the created message item, the primary type being selected from among electronic mail message, instant message, fax message, voice message, news group posting.

4. (Currently Amended) The method as recited in claim 3, wherein the an act of making the message item simultaneously compatible with the plurality of different message protocols by assigning one or more at least one protocol extension[[s]] to the created-message item for each of the plurality of different message protocols to account for other properties that are not common between the plurality of different message protocols comprises an act of assigning one or more protocol extensions to the ~~created-message~~ item, the one or more protocol extensions being selected ~~at least~~ from among electronic mail protocol extensions, instant messaging protocol extensions, fax protocol extensions, voice message protocol extensions and, news group posting protocol extensions.

5. (Currently Amended) The method as recited in claim 3, wherein the act of making the message item simultaneously compatible with the plurality of different message protocols by assigning one or more at least one protocol extension[[s]] to the created-message

item for each of the plurality of different message protocols to account for other properties that are not common between the plurality of different message protocols comprises an act of assigning a POP3 protocol extension from an electronic mail POP3 extension schema to the ~~created~~-message item.

6. (Currently Amended) The method as recited in claim ~~[[3]]~~5, wherein the act of making the message item simultaneously compatible with the plurality of different message protocols by assigning ~~one or more~~ at least one protocol extension[[s]] to the ~~created~~-message item for each of the plurality of different message protocols to account for other properties that are not common between the plurality of different message protocols comprises an act of assigning an NNTP protocol extension from the electronic mail NNTP extension schema to the ~~created~~-message item.

7. (Currently Amended) The method as recited in claim 3, wherein the act of making the message item simultaneously compatible with the plurality of different message protocols by assigning ~~one or more protocol~~ at least one protocol extension[[s]] to the ~~created~~ message item for each of the plurality of different message protocols to account for other properties that are not common between the plurality of different message protocols comprises an act of assigning a community news protocol extension from an electronic mail community news extension schema to the ~~created~~-message item.

Claim 8. (Cancelled).

9. (Currently Amended) The method as recited in claim 1, wherein the act of making the message item simultaneously compatible with the plurality of different message applications by assigning ~~one or more~~ at least one application extension[[s]] to the ~~created~~ message item for each of the plurality of different message applications to account for other properties that are not common between the plurality of different message applications comprises an act of assigning one or more application extensions to the ~~created~~ message item, the one or more application extensions being selected ~~at least~~ from among electronic mail application

extensions, instant messaging application extensions, fax application extensions, voice message application extensions, and news group posting application extensions.

10. (Original) The method as recited in claim 9, wherein the act of assigning one or more application extensions to the created message item comprises an act of assigning an Microsoft® Outlook® Express application extension to the created message item.

Claim 11. (Cancelled).

12. (Currently Amended) In a computer system that is network connectable along with one or more other computer systems to a network, the computer system including a processor and system memory, a method for transforming supplementing an electronic message, which was created in accordance with a message schema, for compatibility to make the electronic message compatible with an additional message protocol or an additional message application message extension, the electronic message currently compatible with at least one message protocol and at least one message application, the method comprising:

an act of accessing a message item representing the electronic message, the message item having the one or more general properties ~~that may be common to a plurality of different types of message protocols and common to a plurality of different types of message applications,~~ the message item also having one or more currently assigned specific properties, the currently assigned specific properties being specific to at least one currently assigned of a message protocol from among the plurality of message protocols or a message application from among the plurality of message applications~~message extension;~~

an act of the processor snapping on data fields from a further assigning a new message extension schema to the message item, the data fields defined in the further new message extension schema having one or more new specific properties that are to be associated with the message item to facilitate compatibility with the additional message protocol or the additional message application;

an act of retrieving at least one value from the one or more currently assigned specific properties; and

an act of assigning the retrieved at least one value to at least one of the ~~new specific properties snapped on data fields to make the message item compatible promote compatibility with the new message extension the additional message protocol or the additional message application such that the message item is simultaneously compatible with the at least one message protocol, the at least one message application, and the additional message protocol or the additional message application.~~

13. (Currently Amended) The method as recited in claim 12, wherein the act of accessing a message item representing the electronic message, the message item having the one

or more general properties ~~that may be~~ common to a plurality of different ~~types of~~ message protocols and a plurality of different ~~types of~~ message applications comprises an act of accessing a message item representing the electronic message, the message item having the one or more general properties that are common to ~~a the~~ plurality of different ~~types of~~ message protocols and ~~a the~~ plurality of different ~~types of~~ message applications.

14. (Currently Amended) The message as recited in claim 12, wherein the act of snapping on data fields defined in a further message extension schema to the message item ~~assigning a new message extension to the message item~~ comprises an act of ~~assigning a new~~ snapping on data fields from a further message extension schema, the ~~new further~~ message extension schema being selected at least from among electronic mail protocol extension[[s]]schemas, instant messaging protocol extension[[s]]schemas, fax protocol extension[[s]]schemas, voice message protocol extension[[s]]schemas and, news group posting protocol extension[[s]]schemas, electronic mail application extension[[s]]schemas, instant messaging application extension[[s]]schemas, fax application extension[[s]]schemas, voice message application extension[[s]]schemas, and news group posting application extension[[s]]schemas.

15. (Original) The method as recited in claim 12, wherein an act of retrieving at least one value from the one or more existing specific properties comprises on act of retrieving one or more existing specified properties from a message item that represents one of an electronic mail message, a fax message, an instant message, a voice message, or a news group posting.

16. (Currently Amended) The method as recited in claim 12, wherein the act of assigning the retrieved at least one value to at least one of the snapped on data fields ~~new specific properties~~ comprises an act of assigning a value retrieved from ~~one of a~~ data field defined in one of an ~~currently assigned~~ electronic mail message extension schema, a ~~currently assigned~~ fax message extension schema, an ~~currently assigned~~ instant message extension schema, a ~~currently assigned~~ voice message extension schema, or a ~~currently assigned~~ news group posting extension schema, to a snapped on data field defined in one of an ~~newly assigned~~ electronic mail message extension schema, a ~~newly assigned~~ fax message extension schema, an ~~newly assigned~~ instant

message extension schema, a ~~newly assigned~~ voice message extension schema, or a ~~new assigned~~ news group posting extension schema.

Claim 17. (Cancelled).

18. (Currently Amended) The method as recited in claim 1, wherein the act of creating a message item representing an electronic message comprises an act of creating a message item including~~One or more computer-readable media having stored thereon a data structure representing an electronic message, the data structure comprising:~~

a general properties field representing common electronic message properties that are common to a plurality of different types of message protocols and a plurality of different types of message applications; and

at least one protocol specific property field, the at least one protocol specific property field representing one or more protocol specific message properties that correspond to a specific message protocol, the specific message protocol being selecting from among the plurality of different types of message protocols that have the common electronic message properties represented in the general properties field in common.[].]

19. (Currently Amended) The method as~~one or more computer-readable media having stored thereon a data structure representing an electronic message~~ as recited in claim 18, wherein the at least one protocol specific property field comprises:

a protocol specific property field representing one or more protocol specific message properties that correspond to one of an electronic mail protocol, an instant messaging protocol, a fax protocol, a voice message protocol, or a news group protocol.

20. (Currently Amended) The method~~one or more computer-readable media having stored thereon a data structure representing an electronic message~~, as recited in claim 18, ~~the data structure~~ wherein the act of creating a message item further compris[[]ing]]es an act of creating a message item including:

at least one application specific property field, the at least one application specific property field representing one or more application specific electronic message properties that correspond to a specific message application, the specific message application being selecting from among the plurality of different types of message applications that have the common electronic message properties represented in the general properties field in common.

21. (Currently Amended) The method as recited in claim 1, wherein the act of creating a message item representing an electronic message comprises an act of creating ~~One or more computer readable media having stored thereon a data structure representing an electronic message, the data structure comprising~~ including:

a general properties field representing common electronic message properties that are common to a plurality of different types of message protocols and a plurality of different types of message applications; and

at least one application specific property field, the at least one application specific property field representing one or more application specific electronic message properties that correspond to a specific message application, the specific message application being selecting from among the plurality of different types of message applications that have the common electronic message properties represented in the general properties field in common.

22. (Currently Amended) The method as ~~one or more computer readable media having stored thereon a data structure representing an electronic message as recited in claim 21,~~ wherein the at least one application specific property field comprises:

an application specific property field representing one or more application specific message properties that correspond to one of an electronic mail application, an instant messaging application, a fax application, a voice message application, or a news group application.

23. (Currently Amended) The method as recited in claim 1, wherein the act of creating a message item representing an electronic message comprises an act of creating a message item including~~One or more computer-readable media having stored thereon a data structure for representing an electronic message, the data structure comprising:~~

an ID field representing an identifier that identifies the electronic message within an message database;

a primary type field representing a primary message type of the electronic message identified by the identifier represented in the ID field, the primary message type implying a behavior of the electronic message;

at least one MessageParticipant relationship field representing links to one or more message participants associated with the electronic message identified by the identifier represented in the ID field;

at least one MessageContents relationship field representing links to one or more portions of message content corresponding to the electronic message electronic message identified by the identifier represented in the ID field;

at least one sent message folder relationship field representing links to one or more message folders the electronic message identified by the identifier represented in the ID field is to be moved to after being submitted for delivery; and

a download state field representing a download state of the electronic message identified by the identifier represented in the ID field.

24. (Currently Amended) The method as recited in claim 23, wherein the act of creating a message item further comprises an act of creating a message item including~~one or more computer-readable media having stored thereon a data structure representing an electronic message as recited in claim 23, further comprising:~~

a message status field representing the status of the electronic message identified by the identifier represented in the ID field.

25. (Currently Amended) The method as recited~~one or more computer-readable media having stored thereon a data structure representing an electronic message as recited in claim [[23]]24, wherein the message status field is comprised of:~~

an IsRead field representing an indication of whether or not the electronic message is identified by the identifier represented in the ID field has been marked as read;

a SendStatus field representing an indication of the send status of the electronic message identified by the identifier represented in the ID field;

a LastActionTaken field representing an indication of the last action that was taken on the electronic message identified by the identifier represented in the ID field;

a LastActionTime field representing the time that the last action indicated in the LastActionTaken field was taken; and

a LastActionType field representing the type of that last action taken on the electronic message identified by the identifier represented in the ID field.

26. (Currently Amended) The method as recited in claim 1, wherein the one or more content portions linked to the message item~~One or more computer readable media having stored thereon a data structure representing a portion of message content, the data structure comprising~~include:

an electronic message relationship field representing a link to an electronic message, the link indicating that the portion of message content is associated with an electronic message;

a content type field representing a content type corresponding to the portion of message content;

an order field representing an order value, the order value indicating how the portion of message content is to be ordered with respect to other portions of message content that are also associated with the electronic message; and

a content properties field representing additional properties of the content type represented in the content type field.

27. (Currently Amended) The method~~One or more computer readable media having stored thereon a data structure representing a portion of message content as recited in claim 26,~~ wherein the content properties field comprises:

an attachment type field representing an attachment type of the portion of message content.

28. (Currently Amended) The method~~One or more computer readable media having stored thereon a data structure representing a portion of message content as recited in claim 26,~~ wherein the content properties field comprises:

a MIME URL field representing a link to a MIME path that corresponds to the portion of message content.

29. (Currently Amended) The method as recited in claim 1, wherein the act of assigning a primary type to the message item, the primary type indicating a primary behavior of the one or more content portions linked to the item comprises an act of assigning a primary type indicating the behavior of a message attachment attached to the message item, wherein the message attachment includes~~One or more computer-readable media having stored thereon a data structure for representing a message attachment, the data structure comprising:~~

an electronic message relationship field representing a link to ~~[[a]]~~the message item, the link indicating that the message attachment is associated with the message item;

a type field representing a message type of the electronic message linked to by the link represented in the electronic message link field, the message type implying a behavior of the electronic message;

an IsPinned field representing the deletion status of the message attachment with respect to the electronic message ~~linked to by the link represented in the electronic message link field;~~

an IsTrusted field representing trust information related to the message attachment; and

an attachment state field representing the type and behavior of the message attachment.

30. (Currently Amended) The method as recited in claim 29, wherein ~~One or more computer-readable media having stored thereon a data structure representing a~~ the message attachment ~~as recited in claim 29, further includes~~ comprising:

an attachment source relationship field representing a link to a database item where the message attachment was accessed.

31. (Currently Amended) The method as recited in claim 29, wherein the ~~One or more computer-readable media having stored thereon a data structure representing a~~ message attachment ~~as recited in claim 29, further includes~~ comprising:

an saved from relationship field representing a link to the message attachment.

32. (Currently Amended) The method as recited in claim 7, wherein the act of assigning a community news protocol extension from an electronic mail community news extension schema to the message item ~~One or more computer readable media having stored thereon a data structure representing a community news folder, the data structure comprising an act of attaching data fields from the electronic mail community news extension schema to the message item, the data fields including:~~

- a community range field representing a collection of article ID ranges from a news group community that have been synchronized with community header properties;

- a communities last refresh field representing the last time the community dynamic properties of the news group community including the collection of synchronized article IDs represented in the community range field was refreshed;

- a low article ID field representing a low article ID included the a collection of synchronized article ID ranges represented in the community range field; and

- a high article ID field representing a high article ID included the a collection of synchronized article ID ranges represented in the community range field.

Claim 33. (Cancelled).

34. (Currently Amended) The method as recited in claim 3, wherein the act of creating a message item representing an electronic message comprises an act of creating a message item including ~~One or more computer readable media having stored thereon a data structure representing a message schema, the data structure comprising:~~

a primary type field defining a format for representing a primary message type corresponding to an electronic message, the primary message type implying a behavior of the electronic message;

a participants relationship field defining a format for representing links to message participants, the message participants being associated with the electronic message having a primary message type defined in accordance with the primary message type format in the primary type field;

a contents relationship field defining a format for representing links to one or more portions of message content, the one or more portions of content corresponding to the electronic message having a primary message type defined in accordance with the primary message type format in the primary type field;

a sent message folder relationship field defining a format for representing links to one or more message folders that the electronic message, having a primary message type defined in accordance with the primary message type format in the primary type field, should be moved to after being submitted for delivery; and

a download state field defining a format for representing download states corresponding to the electronic message having a primary message type defined in accordance with the primary message type format in the primary type field[.]; and

wherein the act of assigning a primary type to the message item comprises an act of assigning a value to the primary type field

35. (Currently Amended) The method ~~one or more computer readable media having stored thereon a data structure representing a message schema as recited in claim 34, an act of creating a message item comprises an act of creating a message item including~~further comprising:

a message status field defining a format for representing the status of the electronic message having a primary message type defined in accordance with the

primary message type format in the primary type field, the message schema including or referring to a message status schema that defines the format for representing the status of the electronic message.

36. (Currently Amended) The method ~~one or more computer readable media having stored thereon a data structure representing a message schema~~ as recited in claim 35, wherein the message status field ~~is comprised of~~ includes:

- an IsRead field defining a format for representing an indication of whether or not the electronic message is identified by the identifier represented in the ID field has been marked as read;

- a SendStatus field defining a format for representing an indication of the send status of the electronic message identified by the identifier represented in the ID field;

- a LastActionTaken field defining a format for representing an indication of the last action that was taken on the electronic message identified by the identifier represented in the ID field;

- a LastActionTime field defining a format representing the time that the last action indicated in the LastActionTaken field was taken;

- a LastActionType field defining a format representing the type of that last action taken on the electronic message identified by the identifier represented in the ID field.

Claims 37-43. (Cancelled).

44. (Currently Amended) A computer program product for use in a computer system that is network connectable along with one or more other computer systems to a network, the computer program product for implementing a method for creating an electronic message that can be stored and accessed with increased efficiency, the computer program product comprising one or more computer~~[[-]]~~readable storage media having stored thereon computer executable instructions that, when executed by a processor, cause the computer system to perform the following:

create a message item representing the electronic message in accordance with a message schema, the message item having one or more general properties ~~that are~~ common to a plurality of different ~~types of~~ message protocols and common to a plurality of different message applications;

assign a primary type to the ~~created~~ message item, the primary type indicating a primary behavior of one or more content portions linked to the ~~created~~ message item;

making the message item simultaneously compatible with the plurality of different message protocols by assigning one or more at least one protocol extension[[s]] to the ~~created~~ message item, each assigned at least one protocol extension adding one or more protocol specific properties from a protocol extension schema corresponding to a specified message protocol, selected from among the plurality of different message protocols, to the created message item so as to such that the one or more linked content portions of the message item are compatible promote compatibility between the one or more linked content portions and a with the specified message protocol; and

make the message item simultaneously compatible with the plurality of different message applications by assigning one or more at least one application extension[[s]] to the ~~created~~ message item for each of the plurality of different message applications to account for properties that are not common between the plurality of different message applications, each assigned at least one application extension adding one or more application specific properties from an application extension schema corresponding to a specified message application, selected from among the plurality of different message application, to the ~~created~~ message item so as to such that the one or more linked content portions of the message item are compatible promote compatibility between the one or more linked content portions and a with the specified message application.

45. (Currently Amended) A computer program product for use in a computer system that is network connectable along with one or more other computer systems to a network, the computer program product for implementing a method for ~~transforming~~ supplementing an electronic message, which was created in accordance with a message schema, ~~for compatibility to make the electronic message compatible with an additional message protocol or an additional message application~~ message extension, ~~the electronic message currently compatible with at least one message protocol and at least one message application~~, the computer program product comprising one or more computer~~[-]]~~readable storage media having stored thereon computer executable instructions that, when executed by a processor, cause the computer system to perform the following:

access a message item representing the electronic message, the message item having the one or more general properties ~~that are~~ common to a plurality of different ~~types of~~ message protocols and a plurality of different ~~types of~~ message applications, the message item also having one or more currently assigned specific properties, the currently assigned specific properties being specific to at least one of a message protocol from among the plurality of message protocols or a message application form among a plurality of message applications~~currently assigned message extension~~;

~~an act of assigning~~ snap on data fields defined from a further ~~a new~~ message extension schema to the message item, the data fields defined in the further ~~new~~-message extension schema having one or more new specific properties that are to be associated with the message item to facilitate compatibility with the additional message protocol or the additional message application;

an act of retrieving at least one value from the one or more currently assigned specific properties; and

an act of assigning the retrieved at least one value to at least one of the ~~new specific properties snapped on data fields to make the message item compatible~~ promote compatibility with the new message extension~~additional message protocol or the additional message application such that the message item is simultaneously compatible with the at least one message protocol, the at least one message application, and the addition message protocol or the additional message application.~~

Claims 46 and 47. (Cancelled).

48. (New). The method as recited in claim 12, wherein the act of snapping on fields from a further message extension schema to the message item comprise act of snapping on fields from an instant message application extension schema to a message item that is currently compatible with an electronic mail message application; and

wherein the act of assigning the retrieved at least one value to at least one of the snapped on data fields to make the message item compatible with the additional message protocol or the additional message application comprises an act of assigning the retrieved value to least one data field snapped on from the instant message application extension schema to make the message item compatible with both an instant message application and the electronic mail message application.

49. (New). The method as recited in claim 12, wherein the act of snapping on fields from a further message extension schema to the message item comprise act of snapping on fields from an electronic mail message application schema to a message item that is currently compatible with first electronic mail message application; and

wherein the act of assigning the retrieved at least one value to at least one of the snapped on data fields to make the message item compatible with the additional message protocol or the additional message application comprises an act of assigning the retrieved value to least one data field snapped on from the electronic mail message application extension schema to make the message item compatible with both a second electronic mail message application and the first electronic mail message application.

50. (New). The method as recited in claim 12, wherein the act of snapping on fields from a further message extension schema to the message item comprise act of snapping on fields from one of: a fax protocol schema and a voice message protocol schema to a message item that is currently compatible with an electronic mail message protocol; and

wherein the act of assigning the retrieved at least one value to at least one of the snapped on data fields to make the message item compatible with the additional message protocol or the

additional message application comprises an act of assigning the retrieved value to least one data field snapped on from the one of the fax protocol schema and the voice message protocol schema to make the message item compatible with the electronic mail protocol and one of a fax application and a voice message application corresponding to the fax protocol schema and the voice message protocol schema respectively.